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O.G. FIG. SUBCLASS CLASS APPROVED BY DRAFTSMAN

```
                atgagggcccctgctcagattttggattcttggtcaggagacgttgt
                ------------------------------------------------
                tactcccggggacgagtctaaaaacctaagaaccagtcctctgcaaca
ACTAGTCGACATGAGGGCCCCTGCTCAGTTTTTTGGCTTCTTG-3'
                  A           A  C    AA
               MKV4 PRIMER

    agaaatgagaccgtctattcagttcctggggctcttgttgttctggcttcatgg
 49 ------------------------------------------------------
    tctttactctggcagataagtcaaggaccccgagaacaacaagaccgaagtacc

      [M  R  P  S  I  Q  F  L  G  L  L  L  F  W  L  H  G
                                LEADER

    tgctcagtgtgacatccagatgacacagtctccatcctcactgtctgcatctct
103 ------------------------------------------------------
    acgagtcacactgtaggtctactgtgtcagaggtaggagtgacagacgtagaga

     A  Q  C][D  I  Q  M  T  Q  S  P  S  S  L  S  A  S  L
                                                FR1
    gggaggcaaagtcaccatcacttgcaagacaagccaagacattaacaagtatat
157 ------------------------------------------------------
    ccctccgtttcagtggtagtgaacgttctgttcggttctgtaattgttcatata

     G  G  K  V  T  I  T  C][K  T  S  Q  D  I  N  K  Y  M
                                      CDR1

    ggcttggtaccaacacaagcctggaaaacgtcctaggctgctcatacattacac
211 ------------------------------------------------------
    ccgaaccatggttgtgttcggacctttgcaggatccgacgagtatgtaatgtg

     A][W  Y  Q  H  K  P  G  K  R  P  R  L  L  I  H][Y  T
                           FR2

    atctgcattacagccaggcatcccatcaaggttcagtggaagtgggtctgggag
265 ------------------------------------------------------
    tagacgtaatgtcggtccgtagggtagttccaagtcaccttcacccagaccctc

     S  A  L  Q  P][G  I  P  S  R  F  S  G  S  G  S  G  R
      CDR2
```

FIG.1A

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O.G. FIG.
SUBCLASS
CLASS
APPROVED BY DRAFTSMAN

```
    agattattccttcaacatcagcaacctggagcctgaagatattgcaacttatta
319 ----------------------------------------------------
    tctaataaggaagttgtagtcgttggacctcggacttctataacgttgaataat

     D  Y  S  F  N  I  S  N  L  E  P  E  D  I  A  T  Y  Y
           FR3

    ttgtctacagtatgataatctgtggacgttcggtggaggcaccaagctggaaat
373 ----------------------------------------------------
    aacagatgtcatactattagacacctgcaagccacctccgtggttcgacctta

     C][L  Q  Y  D  N  L  W  T][F  G  G  G  T  K  L  E  I
              CDR3                          FR4

                                          MOUSE KAPPA PRIMER
                                    3'-GTAGAAGGGTGGTAGGTGGGCCCT
    caaacgggctgatgctgcaccaactgtatccatcttcccaccatccacccggga
427 ----------------------------------------------------
    gtttgcccgactacgacgtggttgacataggtagaagggtggtaggtgggccct

     K]

    AGG-5'
    tcc
481 ---
    agg
```

FIG.1B

OIPE JC95 OCT 2 4 2002 PATENT & TRADEMARK OFFICE

O.G. FIG. SUBCLASS CLASS APPROVED BY DRAFTSMAN

```
                atgaaatgcagctgggtcatgttcttcctgatggcagtggttacaggg
              1 ----------------------------------------------
                tactttacgtcgacccagtacaagaaggactaccgtcaccaatgtccc
ACTAGTCGACATGAAATGCAGCTGGGTCATCTTCTTC-3'
                                  G
          MHV1 PRIMER
        [M  K  C  S  W  V  M  F  F  L  M  A  V  V  T  G
                                LEADER

    gtcaattcagaggttcagctgcagcagtctggggcagagcttgtgaagccaggg
 49 ----------------------------------------------------
    cagttaagtctccaagtcgacgtcgtcagaccccgtctcgaacacttcggtccc

    V  N  S][E  V  Q  L  Q  Q  S  G  A  E  L  V  K  P  G
                                                  FR1

    gcctcagtcaagttgtcctgcacagcttctggcttcaacattaaagacacctat
103 ----------------------------------------------------
    cggagtcagttcaacaggacgtgtcgaagaccgaagttgtaatttctgtggata

    A  S  V  K  L  S  C  T  A  S  G  F  N  I  K][D  T  Y
                                                     CDR1

    atacactgtgtgaagcagaggcctgaacagggcctggagtggattggaaggatt
157 ----------------------------------------------------
    tatgtgacacacttcgtctccggacttgtcccggacctcacctaaccttcctaa

    I  H][C  V  K  Q  R  P  E  Q  G  L  E  W  I  G][R  I
                                  FR2

    gatcctgcgaatggttatactaaatatgacccgaagttccagggcaaggccact
211 ----------------------------------------------------
    ctaggacgcttaccaatatgatttatactgggcttcaaggtcccgttccggtga

    D  P  A  N  G  Y  T  K  Y  D  P  K  F  Q  G][K  A  T
                     CDR2

    ataacagctgacacatcctccaacacagcctacctgcagctcagcagcctgaca
265 ----------------------------------------------------
    tattgtcgactgtgtaggaggttgtgtcggatggacgtcgagtcgtcggactgt

    I  T  A  D  T  S  S  N  T  A  Y  L  Q  L  S  S  L  T
                                                  FR3
```

FIG. 2A

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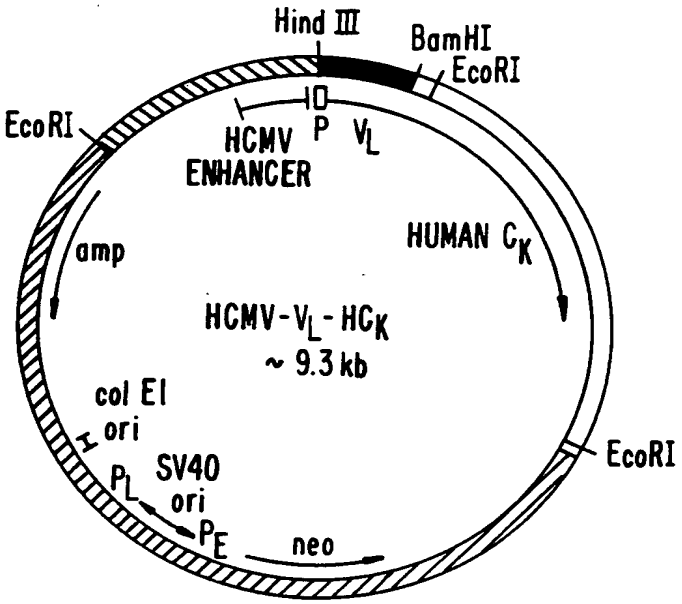
O.G. FIG.
APPROVED BY DRAFTSMAN
CLASS
SUBCLASS

```
                                                    tctgaggacactgccgtctatttctgtgctagagagggatattatggtaactac
                                                    ----------------------------------------------------
                                                    agactcctgtgacggcagataaagacacgatctctccctataataccattgatg

                                                    S  E  D  T  A  V  Y  F  C  A  R][E  G  Y  Y  G  N  Y
                                                                                                  CDR3

                                                    ggggtctatgctatggactactggggtcaaggaacctcagtcaccgtctcctca
373                                                 ----------------------------------------------------
                                                    ccccagatacgatacctgatgaccccagttccttggagtcagtggcagaggagt

                                                    G  V  Y  A  M  D  Y][W  G  Q  C  T  S  V  T  V  S  S]

                                                                       MOUSE GAMMA-1 PRIMER
                                                                  3'-GTAGACAGATAGGTGACCGGGCCCTAGG-5
                                                    gccaaaacgacacccccatctgtctatccactggcccgggatcc
427                                                 ----------------------------------------
                                                    cggttttgctgtgggggtagacagataggtgaccgggccctagg

                                                    S  S]
```

FIG. 2B

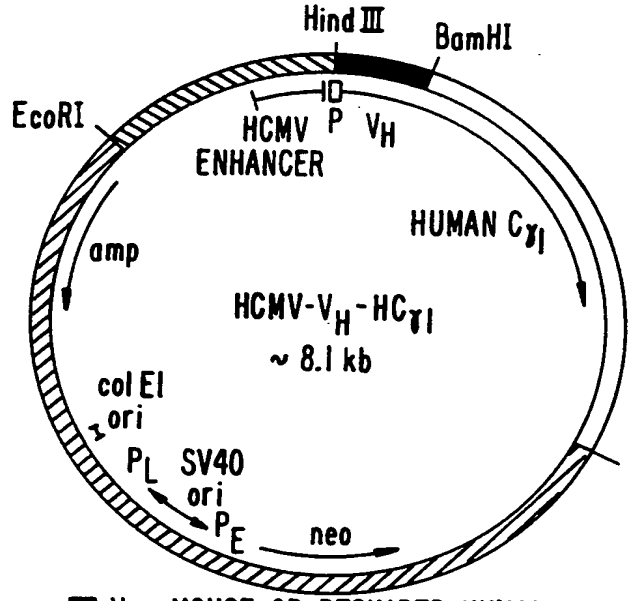
APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

86 TE60 62 25 5T60



■ V_L, MOUSE OR RESHAPED HUMAN
□ C_K, HUMAN
▨ HCMV
▨ pSV2neo

FIG. 3A.



■ V_H, MOUSE OR RESHAPED HUMAN
□ $C_{\gamma 1}$, HUMAN
▨ HCMV
▨ pSV2neo

FIG. 3B.

APPROVED BY DRAFTSMAN
O.G. FIG.
CLASS
SUBCLASS

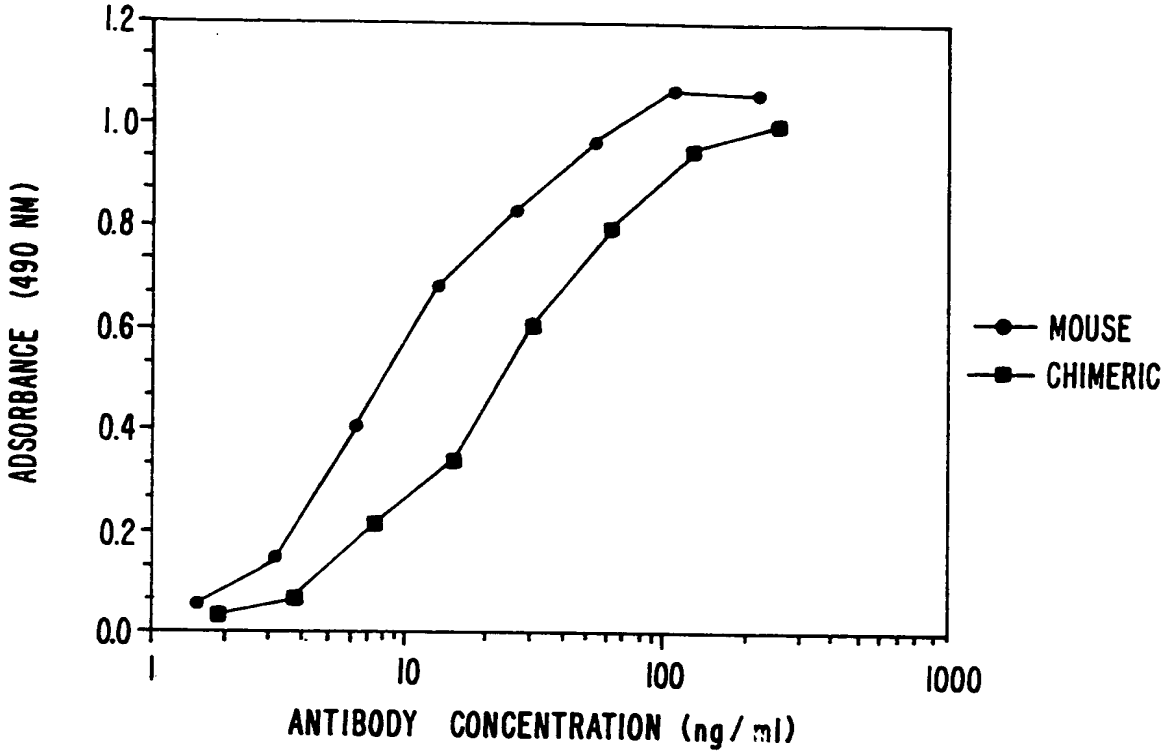


FIG. 4.

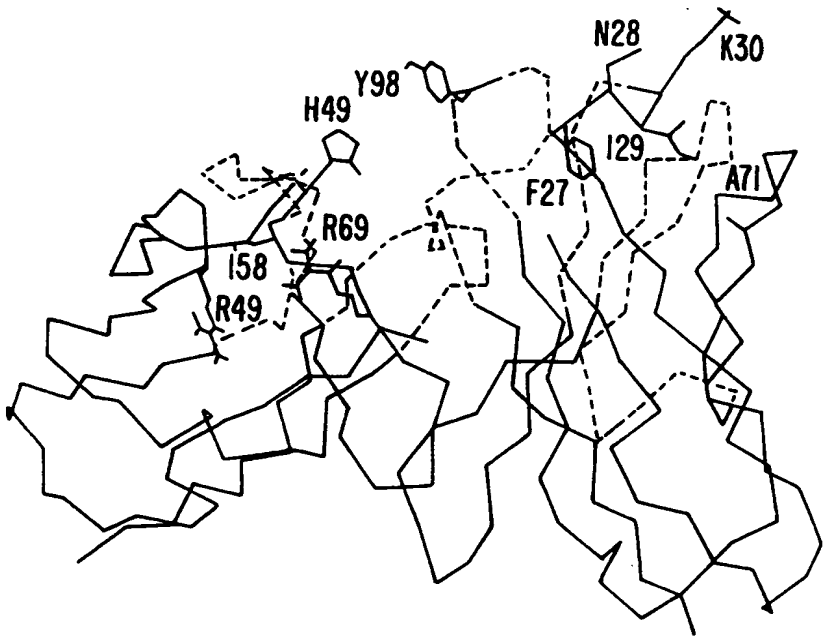


FIG. 5.

86TT60"6E2S5T60

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

```
                FR1                 CDR1            FR2             CDR2
                  1          2          3            4           5
      12345678901234567890123 45678901234 567890123456789 0123456
       *                       *********                *   ***
21.6  DIQMTQSPSSLSASLGGKVTITC KTSQDINKYMA WYQHKPGKRPRLLIH YTSALQP

REI   DIQMTQSPSSLSASVGDRVTITC QASQDIIKYLN WYQQTPGKAPKLLIY EASNLQA

La    DIQMTQSPSSLSASVGDRVTITC KTSQDINKYMA WYQQTPGKAPRLLIH YTSALQP

Lb    ----------------------- ----------- ----------R---- -------


                    FR3                       CDR3      FR4
       6          7          8          9          10
      7890123456789012345678901234567 901234567 8901234567
              *      *                  *******
21.6  GIPSRFSGSGSGRDYSFNISNLEPEDIATYYC LQYDNL-WT FGGGTKLEIK

REI   GVPSRFSGSGSGTDYTFTISSLQPEDIATYYC QQYQSLPYT FGQGTKLQIT

La    GIPSRFSGSGSGRDYTFTISSLQPEDIATYYC LQYDNL-WT FGQGTKVEIK

Lb    -I----------R------------------- --------- ------VE-K
```

FIG. 6.

09/155739

86T60'6E/55T60

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

```
                    FR1                  CDR1        FR2          CDR2
                1         2         3              4          5         6
     12345678901234567890123456789012345 67890123456789 012A3456789012345
                                   ***** ** *                 ****
21.6 EVQLQQSGAELVKPGASVKLSCTASGFNIK DTYIH CVKQRPEQGLEWIG RIDPANGYTKYDPKFQG

2*CL QVQLVQSGAEVKKPGASVKVSCKASGYTFT SYAMH WVRQAPGQRLEWMG WINAGNGNTKYSQKFQG

Ha   QVQLVQSGAEVKKPGASVKVSCKASGFNIK DTYIH WVRQAPGQRLEWMB RIDPANGYTKYDPKFQG

Hb   ---------------------------FNIK ----- --------G----- ----------------

Hc   ---------------------------FNIK ----- ------------- ----------------
```

```
                      FR3                  CDR3         FR4
        7         8              9         10               11
     6789012345678901 2ABC345678901234 567890ABCDEF12 34567890123
          *                          *
21.6 KATITADTSSNTAYLQLSSLTSEDTAVYFCAR EGYYGNYGVYAMDY WGQGTSVTVSS

2*CL RVTITRDTSASTAYMELSSLRSEDTAVYYCAR GGYYGSGS----NY WGQGTLVTVSS

Ha   RVTITADTSASTAYMF   LRSEDTAVYYCAR EGYYGNYGVYA DY WGQGTLVTVSS

Hb   -----A-------      ------------- ---------    - -----------

Hc   -----A-----        --------------- ---F----    - -----------
```

FIG. 7.

09/155739

O.G. FIG.
APPROVED BY DRAFTSMAN
CLASS
SUBCLASS

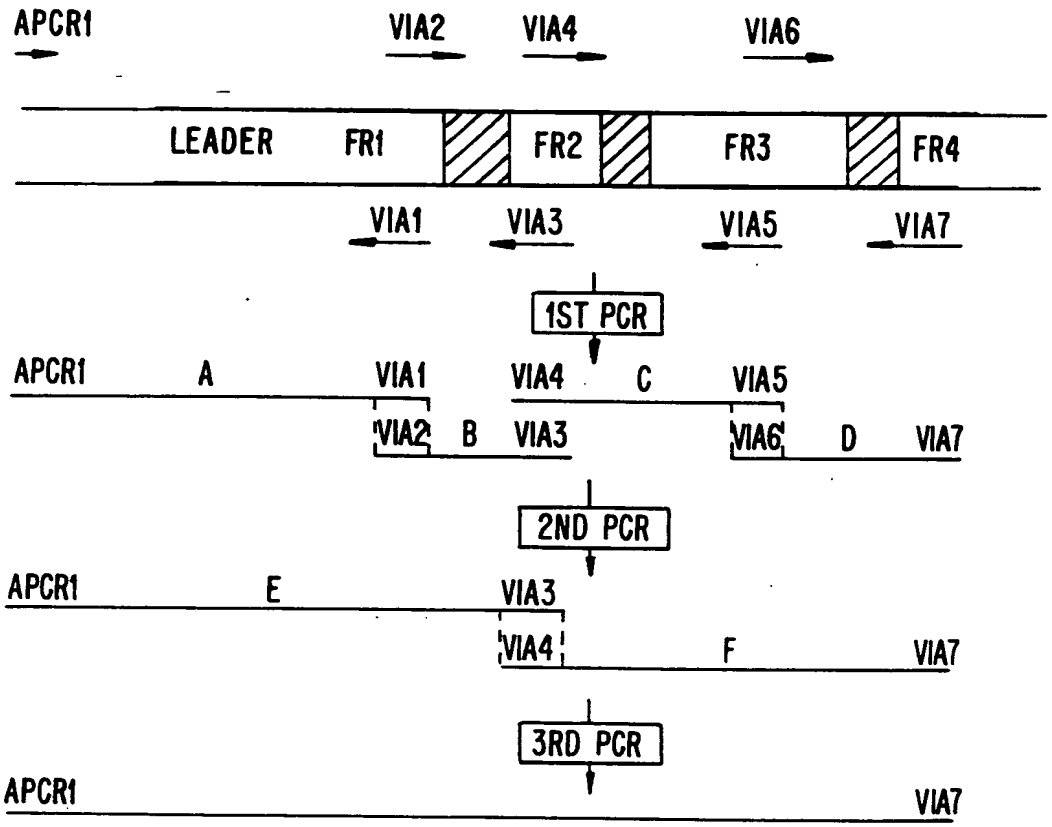


FIG. 8.

APPROVED BY DRAFTSMAN
O.G. FIG. CLASS SUBCLASS

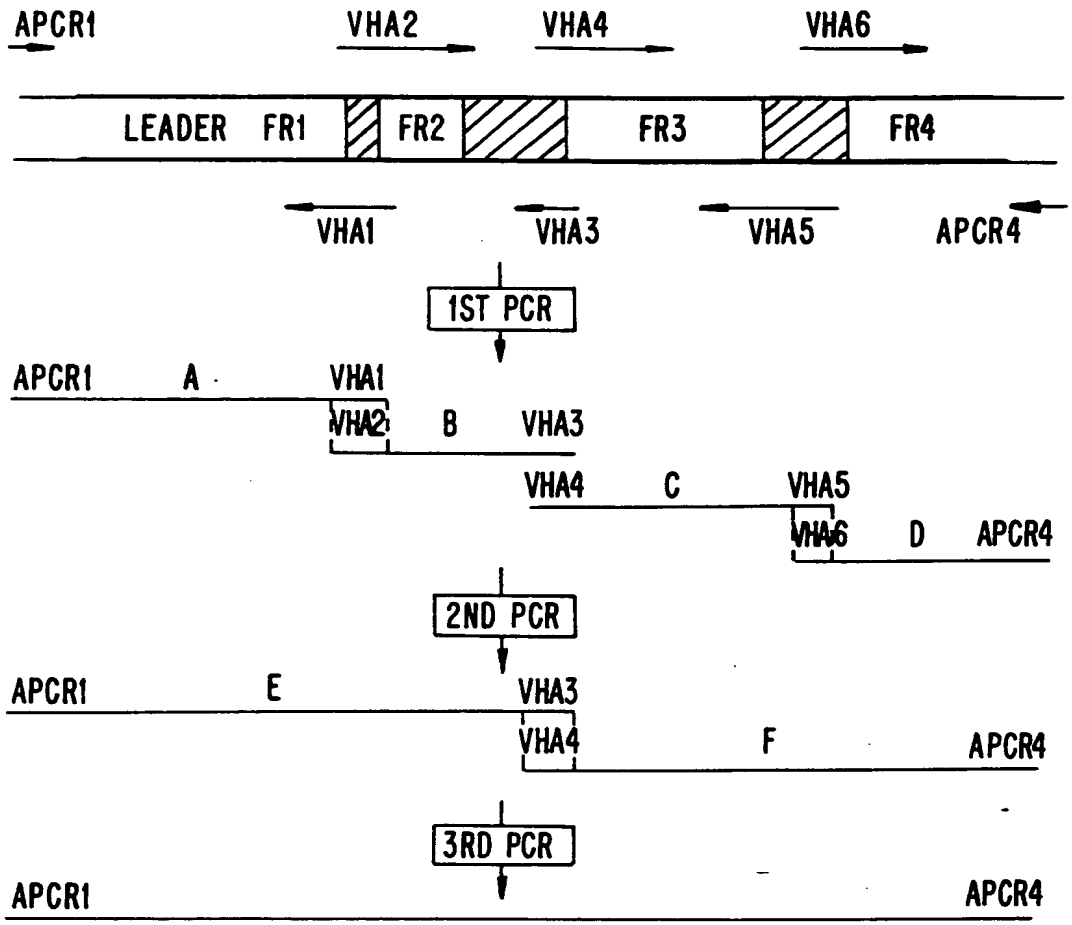


FIG. 9.

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O.G. FIG.
CLASS
SUBCLASS
APPROVED BY DRAFTSMAN

HindIII KOZAK SEQUENCE

```
   aagcttgccgccaccatgagaccgtctattcagttcctggggctcttgttgttc
 1 ----------------------------------------------------
   ttcgaacggcggtggtactctggcagataagtcaaggaccccgagaacaacaag

             [M  R  P  S  I  Q  F  L  G  L  L  L  F
                                      LEADER

   tggcttcatggtgctcagtgtgacatccagatgacacagtctccatcctcactg
55 ----------------------------------------------------
   accgaagtaccacgagtcacactgtaggtctactgtgtcagaggtaggagtgac

   W  L  H  G  A  Q  C][D  I  Q  M  T  Q  S  P  S  S  L
                                                    FR1

   tctgcatctGTAggaGATAGAgtcaccatcacttgcaagacaagccaagacatt
109 ----------------------------------------------------
   agacgtagaCATcctCTATCTcagtggtagtgaacgttctgttcggttctgtaa

   S  A  S  V  G  D  R  V  T  I  T  C][K  T  S  Q  D  I
                                                  CDR1

   aacaagtatatggcttggtaccaaCAGACAcctggaaaaGCTcctaggctgctc
163 ----------------------------------------------------
   ttgttcatataccgaaccatggttGTCTGTggacctttTCGAggatccgacgag

   N  K  Y  M  A][W  Y  Q  Q  T  P  G  K  A  P  R  L  L
                                  FR2

   atacattacacatctgcattacagccaggcatcccatcaaggttcagtggaagt
217 ----------------------------------------------------
   tatgtaatgtgtagacgtaatgtcggtccgtagggtagttccaagtcaccttca

   I  H][Y  T  S  A  L  Q  P][G  I  P  S  R  F  S  G  S
               CDR2

   gggtctgggagagattatACTttcACCatcagcAGCctgCAGcctgaagatatt
271 ----------------------------------------------------
   cccagaccctctctaataTGAaagTGGtagtcgTCGgacGTCggacttctataa

   G  S  F  R  D  Y  T  F  T  I  S  S  L  Q  P  E  D  I
                     FR3
```

FIG. 10A

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O.G. FIG.
SUBCLASS
CLASS
APPROVED BY DRAFTSMAN

```
    gcaacttattattgtctacagtatgataatctgtggacgttcggtCAAggcacc
325 ----------------------------------------------------
    cgttgaataataacagatgtcatactattagacacctgcaagccaGTTccgtgg

    A  T  Y  Y  C][L  Q  Y  D  N  L  W  T][F  G  Q  G  T
                              CDR3                    FR4

    SPLICE DONOR SITE BamHI
    aagGTGgaaatcaaacgtgagtggatcc
379 ----------------------------
    ttcCACctttagtttgcactcacctagg

    K  V  E  I  K]
```

FIG. 10B

OIPE JC95 OCT 24 2002 PATENT & TRADEMARK OFFICE

O.G. FIG. APPROVED BY DRAFTSMAN CLASS SUBCLASS

HindIII KOZAK SEQUENCE

```
    AAGCTTGCCGCCACCATGGACTGGACCTGGCGCGTGTTTTGCCTGCTCGCCGTG
  1 ----------------------------------------------------
    TTCGAACGGCGGTGGTACCTGACCTGGACCGCGCACAAAACGGACGAGCGGCAC

                    [M  D  W  T  W  R  V  F  C  L  L  A  V
                                                LEADER

    GCTCCTGGGGCCCACAGCCAGGTGCAACTAGTGCAGTCCGGCGCCGAAGTGAAG
 55 ----------------------------------------------------
    CGAGGACCCCGGGTGTCGGTCCACGTTGATCACGTCAGGCCGCGGCTTCACTTC

    A  P  G  A  H  S][Q  V  Q  L  V  Q  S  G  A  E  V  K

    AAACCCGGTGCTTCCGTGAAAGTCAGCTGTAAAGCTAGCGGTttcaacattaaa
109 ----------------------------------------------------
    TTTGGGCCACGAAGGCACTTTCAGTCGACATTTCGATCGCCAaagttgtaattt

    K  P  G  A  S  V  K  V  S  C  K  A  S  G  F  N  I  K][
          FR1

    gacacctatatacacTGGGTTAGACAGGCCCCtGGCCAAaGGCTgGAGTGGATg
163 ----------------------------------------------------
    ctgtggatatatgtgACCCAATCTGTCCGGgGaCCGGTTtCCGAcCTCACCTAc

    D  T  Y  I  H][W  V  R  Q  A  P  G  Q  R  L  E  W  M
       CDR1                        FR2

    GGaaggattgatcctgcgaatggttatactaaatatgacccgaagttccagggc
217 ----------------------------------------------------
    CCttcctaactaggacgcttaccaatatgatttatactgggcttcaaggtcccg

    G][R  I  D  P  A  N  G  Y  T  K  Y  D  P  K  F  Q  G][
                                CDR2

    cgggtcACCatcACCgcaGACACCTCTgccagcACCGCCTACATGGAACTGTCC
271 ----------------------------------------------------
    gcccagTGGtagTGGcgtCTGTGGAGAcggtcgTGGCGGATGTACCTTGACAGG

    R  V  T  I  T  A  D  T  S  A  S  T  A  Y  M  E  L  S
                                                      FR3
```

FIG. 11A

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APPROVED BY DRAFTSMAN O.G. FIG. CLASS SUBCLASS

```
    AGCCTGCGCTCCGAGGACACTGCAGTCTACTACTGCGCCagagagggatattat
325 ----------------------------------------------------
    TCGGACGCGAGGCTCCTGTGACGTCAGATGATGACGCGGtctctccctataata

    S  L  R  S  E  D  T  A  V  Y  Y  C  A  R][E  G  Y  Y

    ggtaactacggggtctatgctatgGACTAcTGGGGtCAaGGaACCCTTGTCACC
379 ----------------------------------------------------
    ccattgatgccccagatacgatacCTGATgACCCCaGTtCCtTGGGAACAGTGG

    G  N  Y  G  V  Y  A  M  D  Y][W  G  Q  G  T  L  V  T
       CDR3                                        FR4

    SPLICE DONOR SITE BamHI
    GTCtccTCAGGTGAGTGGATCC
433 ----------------------
    CAGaggAGTCCACTCACCTAGG

    V  S  S]
```

FIG. 11B

APPROVED BY DRAFTSMAN
O.G. FIG.
CLASS
SUBCLASS

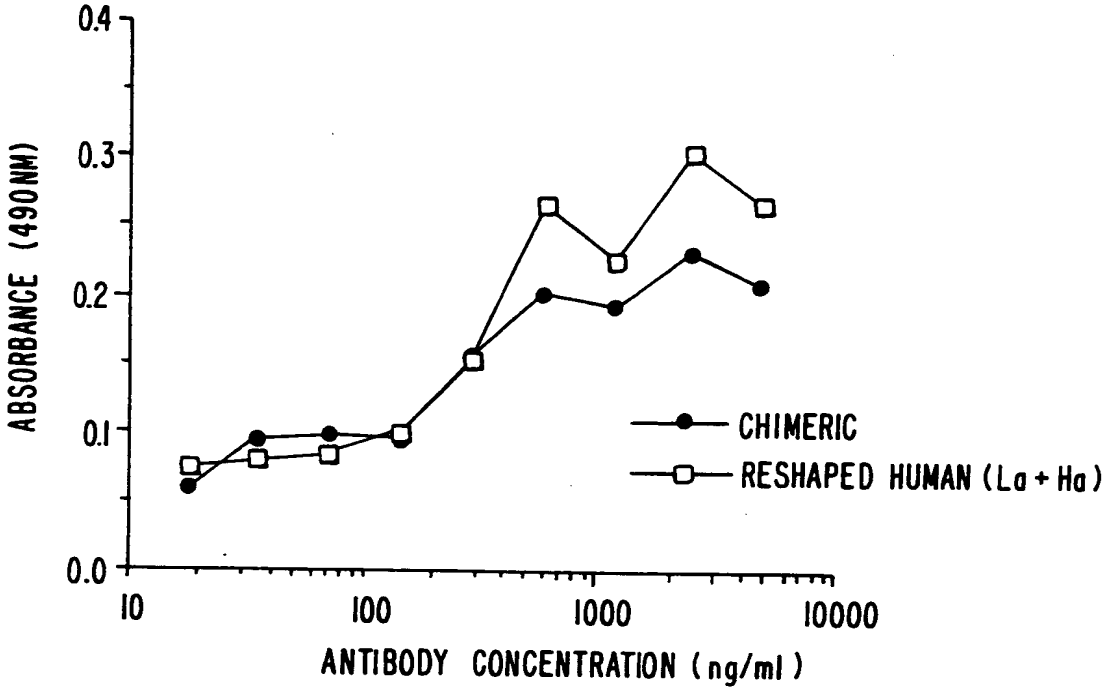

FIG. 12A.

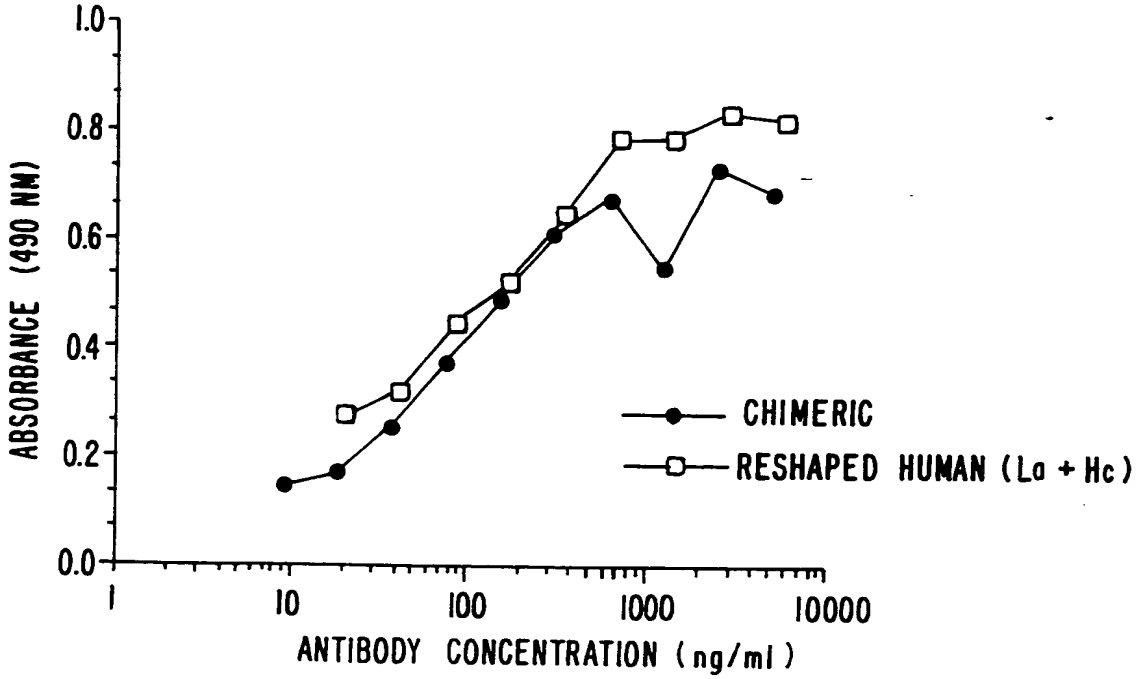

FIG. 12B.

O.G. FIG.
APPROVED BY DRAFTSMAN
CLASS
SUBCLASS

09155739 062799

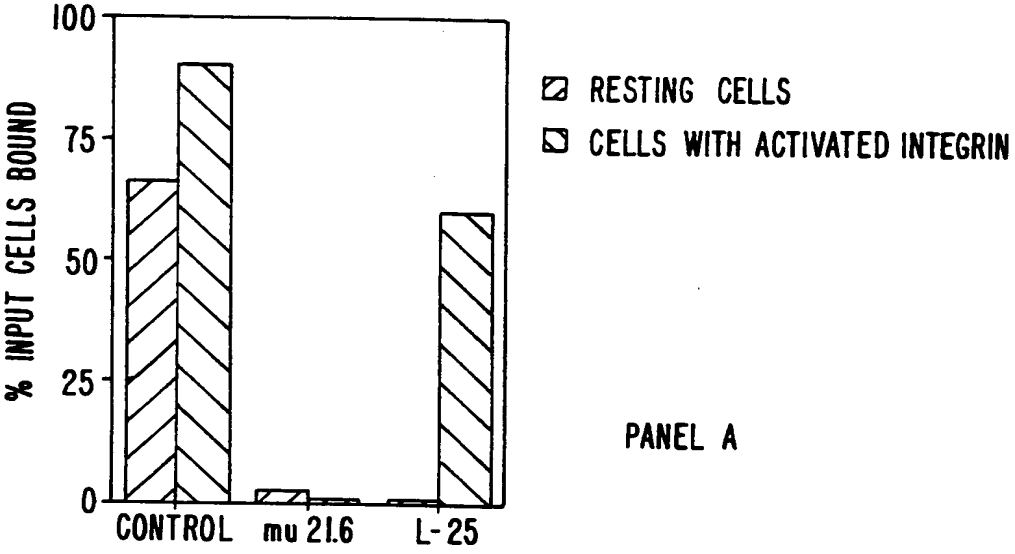

FIG. 13A.

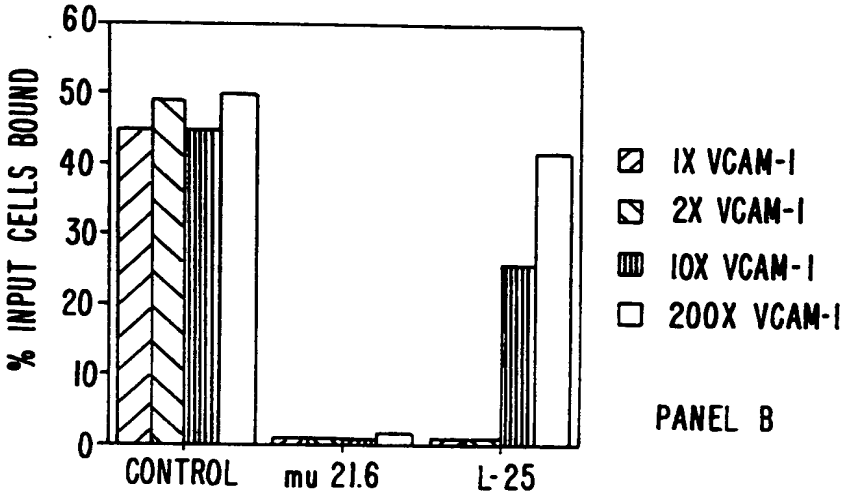

FIG. 13B.

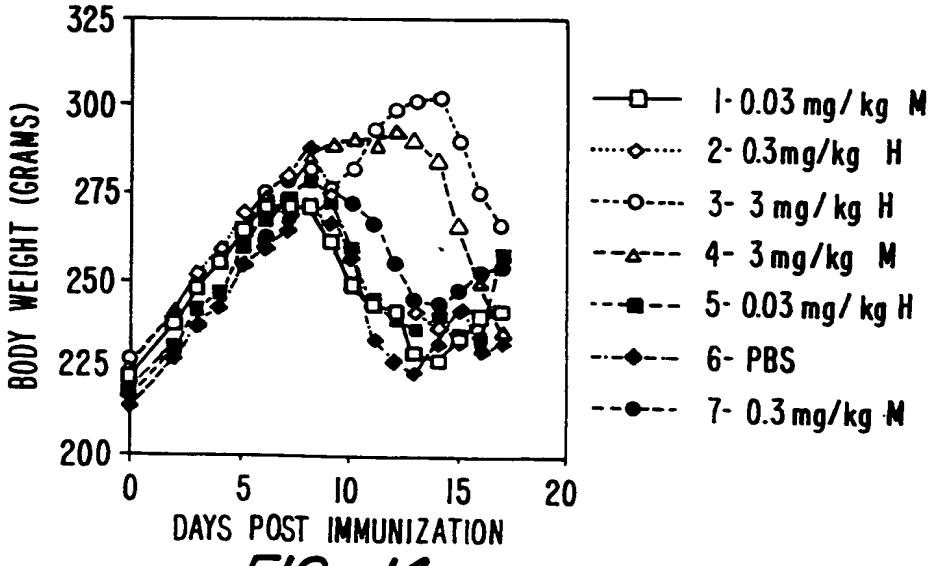

FIG. 14.

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

96T60'SE/SSTSO

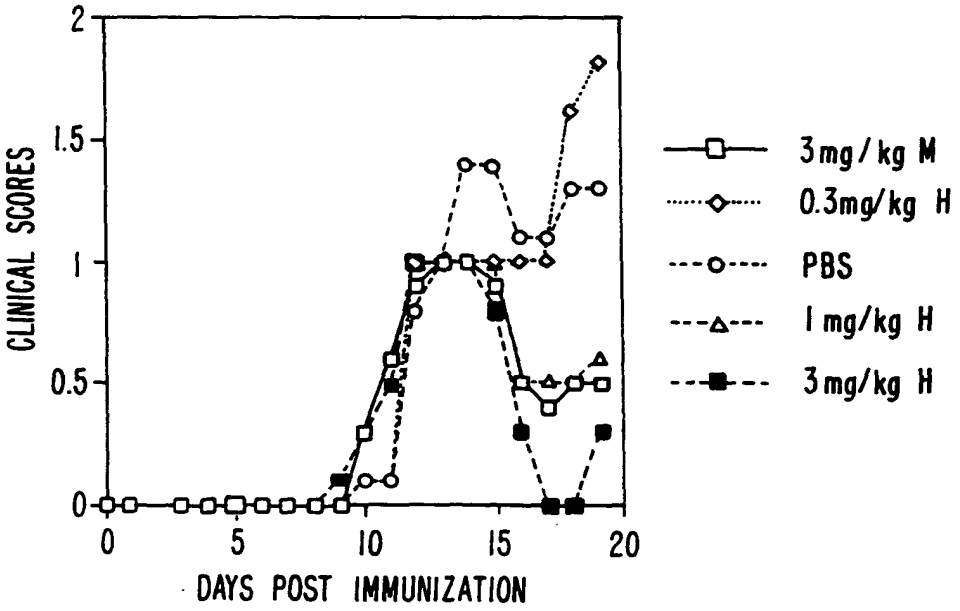

FIG. 15.

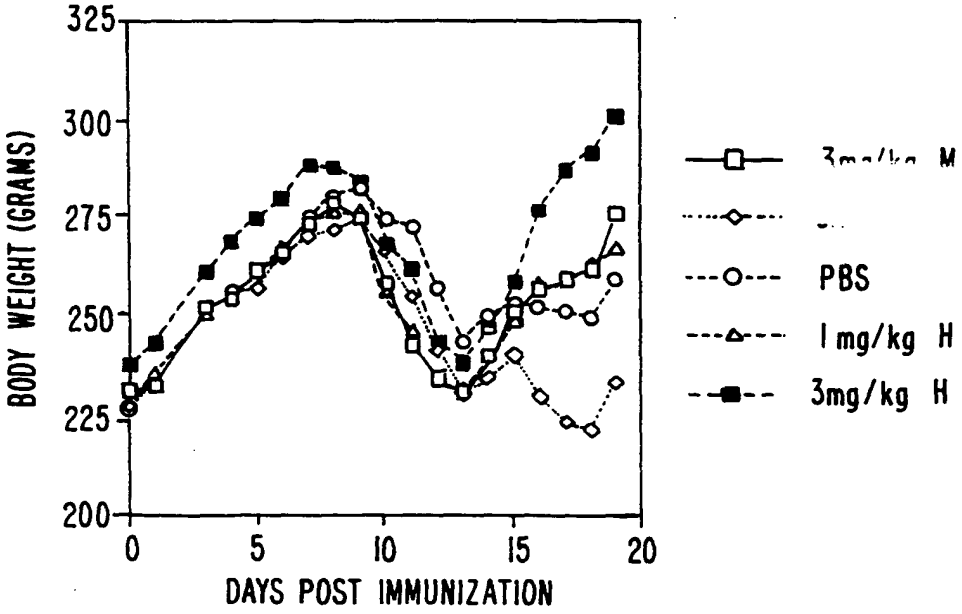

FIG. 16.